

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Previously Presented). An isolated nucleic acid molecule encoding a bacterial autoinducer inactivation protein, wherein the nucleic acid is selected from the group consisting of:

- a) the nucleic acid of SEQ ID NO: 1; and
- b) a nucleic acid encoding the amino acid sequence of SEQ ID NO:2.

Claim 2 (Canceled).

Claim 3 (Previously Presented). The nucleic acid molecule of claim 1, which further comprises a signal peptide coding region of any sequence.

Claim 4 (Previously Presented). An expression vector which comprises the nucleic acid molecule of claim 1, wherein the expression vector propagates in a procaryotic or eucaryotic cell.

Claim 5 (Original). A cell of a procaryote or eucaryote transformed or transfected with the expression vector of claim 4.

Claim 6 (Canceled).

Claim 7 (Currently Amended). A method for increasing disease resistance in a plant or non-human animal, which method comprises introducing into a cell of said plant or non-human animal a nucleic acid encoding a bacterial autoinducer inactivation protein, wherein the nucleic acid is selected from the group consisting of:

- a) the nucleic acid of SEQ ID NO: 1 and;
- b) a nucleic acid encoding the amino acid sequence of SEQ ID NO:2.

Claim 8 (Canceled).

Claim 9 (Previously Presented). The method of claim 7, wherein the nucleic acid further comprises a signal peptide coding region of any sequence.

Claim 10 (Previously Presented). The method of claim 7, wherein the nucleic acid further comprises a membrane attachment domain-coding region of any source.

Claim 11 (Original). The method of claim 7, wherein the plant is susceptible to bacterial soft rot disease.

Claim 12 (Original). The method of claim 11, wherein the plant is selected from the group consisting of potato, eggplant, Chinese cabbage, carrot and celery.

Claim 13 (Original). The method of claim 7, wherein the plant is susceptible to a bacterial disease in which the expression of a virulence gene is regulated by an N-acyl homoserine lactone autoinducer.

Claims 14-25 (Canceled).

Claim 26 (Currently Amended) A method of reducing bacterial autoinducer activity in a plant or non-human animal, which method comprises introducing into a cell of said plant or non-human animal the nucleic acid molecule of claim 1.